

REMARKS

Claims 1-49 remain pending in the application. Claims 9, 13, 14, 18, 20, 31, 35, 36, 39, and 43 have been amended. Reconsideration of the claims as amended is respectfully requested.

CLAIM OBJECTIONS

Examiner objects to claims 1, 7, 29, and 46 for the inclusion of a blank line where the ATCC accession number should be included. Applicant respectfully submits that the pertinent claims will be amended at such time the actual deposit has been made as set forth in 37 CFR §§ 1.801-1.809. Once notice of allowable claims has been received by Applicant, a deposit will be made with the ATCC and the claims will be amended to recite the accession number.

Examiner objects to claims 13, 14, 35, and 36 under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should only refer to other claims in the alternative. Objection is duly noted by Applicant and claims 13, 14, 35, and 36 have been amended as suggested by the Examiner.

REJECTIONS UNDER 37 C.F.R. 1.130(b)-DOUBLE PATENTING

Examiner rejects claims 1-22, 24-44 and 46-49 under the "doctrine of obviousness-type double patenting as being unpatentable over claims 1-27 of U.S. Patent No. 6,153,816." Examiner states, " Although the conflicting claims are not identical, they are not patentably distinct from each other because they both appear to be drawn to the same soybean seed, plants, and plant parts. The instantly claimed soybean seed, plant and plant parts and that of 6,153,816 (93B35) share numerous traits, or differ due to minor morphological variations that would be expected to occur in different progeny of the same cultivar, and wherein said minor morphological variation would not confer a patentable distinction to 93B87. " Applicant respectfully contests this rejection as inappropriate. The inventions 93B35 and 93B87 are not the same inventions nor are their differences "minor morphological variations". Applicant submits that the claimed plant 93B87 cannot be rendered obvious or lacking novelty as it possesses a unique combination of traits which confers a unique combination of genetics.

The inventions 93B87 and 93B35 differ for various traits that are not minor. Nor are they expected to occur in different progeny of the same cultivar. For example 93B87 has more susceptibility to stalk lodging when compared to 93B35. As reported in Tables 2A through 2F in the specification 93B87 demonstrates a stalk lodging resistance average score of 7.35. As reported in Tables 2A-2K of the 6,153,816 patent 93B35 demonstrates a much better tolerance, with an average score of 8.3. This is a large difference.

Another example of the differences is that 93B87 exhibits a shorter time to mature than 93B35. As reported in the same tables, 93B87 takes an average of 127.8 days to reach maturity while 93B35 takes an average of 129 days.

Yet another example is maturity, 93B87 has a relative maturity of 38 while 93B35 has a relative maturity of 33. This is a large difference in maturity and will affect area of adaptation.

Other traits which differ between the two inventions include: flower color, (93B35 purple, 93B87 is white), Sudden death syndrome tolerance, (93B87 has above average tolerance while 93B35 is susceptible), and iron deficiency chlorosis tolerance, (93B87 has above average tolerance while 93B35 has average tolerance).

The examples and the list are not exhaustive but they give ample evidence that the inventions are not the same. Nor are they minor variations of each other.

In light of the above remarks, Applicant respectfully requests the Examiner withdraw the rejection to claims 1-22 and 24-44 under 37 CFR 1.130(b).

REJECTIONS UNDER 35 U.S.C. § 112, SECOND PARAGRAPH

Examiner rejects claims 1-49 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Examiner states "Amending claims 1, 6, 21, 25, 37, and 40 to recite the ATCC deposit number in which seed of soybean variety 93B87 has been deposited would overcome the rejection." Applicant respectfully submits that the pertinent claims will be amended at such time the actual deposit has been made as set forth in 37 CFR §§ 1.801-1.809. Once notice of allowable claims has been received by Applicant, a deposit will be made with the ATCC and the claims will be amended to recite the accession number.

Examiner rejects claims 5 and 27 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention. Examiner states that the claims are indefinite because they fail to specify what kind of cells comprise the claimed tissue culture. The Examiner also suggests amending the claims to recite that the tissue regenerates plants that express all of the morphological and physiological characteristics of claim 2 would obviate the rejection. Applicant respectfully traverses this rejection. Claims 5 and 27 distinctly claim a tissue culture of regenerable cells derived from the plant of claim 2 and claim 24, respectively. The plant of claim 2 and 24 is clearly defined within the specification. For example, the physiology and morphology of the plant is described in Table 1 in the specification, and a deposit of the seed of the plant of claims 2 and 24 will be made. One of ordinary skill in the art will clearly understand the plants and their derived tissue culture being claimed by Applicant.

As stated in MPEP 2173.02, "The essential inquiry pertaining to this requirement is whether the claims set out and circumscribe a particular subject matter with a reasonable degree of clarity and precision." One of the criteria for satisfaction of this requirement is "the claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made." *Id.* As stated above, one of ordinary skill in the art will clearly understand what is meant by tissue culture. Additionally, the deposit of 93B87 adds a high degree of clarity and precision to the claim. See *In re Argoudelis*, 434 F.2d 666, 168 USPQ 99 (CCPP 1970). Thus, claims 2 and 24 distinctly claim the subject matter, which the Applicant regards as his invention, and claims 5 and 27 are proper claims depending therefrom. Applicant asks for reconsideration and withdrawal of this rejection.

The Examiner rejects claims 9, 20, 31, and 39 under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner states that these claims have improper antecedent bases as the claims are directed to the soybean breeding program of the claim from which they depend, however these claims are drawn to a method, not a program. These claims have all been amended to refer to the "method" of the previous claim and should obviate the rejection.

The Examiner rejects claims 10, 21, 22, 27, 32, 40, 44, and 49 under 35 U.S.C. §112, second paragraph. The Examiner states that the claims are indefinite in that it is unclear what would constitute the soybean plants and parts, given that they are the

products of multiple crosses and it is unclear what characteristics said plants and plant parts would have. Applicant respectfully traverses the Examiner's grounds for rejection. Claims 10, 21, 22, 27, 32, 40, 44, and 49 clearly state that somewhere in the breeding process, regardless of the breeding techniques used, soybean variety 93B87 must be used. Only plants developed through the use of 93B87 are within the scope of the claims and 93B87 has been clearly described by both deposit and text in the specification. Applicant respectfully requests that this rejection be withdrawn.

Examiner rejects claims 13 and 14 for the use of "the inbred soybean plant" in line two for which there is no antecedent basis. Applicant has amended the claims to remove this term inbred and thus correct the rejection.

Examiner rejects claim 18 and 43 for improper antecedent basis for "the seed of claim 17 (or 42)" as well as the recitation, "An F1 hybrid soybean seed plant". The word "seed" has been removed from these claims which will obviate the rejection.

Examiner rejects claims 23 and 45 for the recitation s of regions and particular states. Applicant requests reconsideration, the regions are more general identifiers which include multiple states including those listed. The states are simply included for more particularly describe the larger regions and does not render the claim indefinite.

Examiner rejects claim 35 for the use of the phrase "the inbred soybean plant of claim 24" for lack of antecedent basis as well as the limitation "The methods of claim 31 for producing a first generation hybrid soybean seed". Claim 31 as discussed earlier has been amended to refer to a "method" thus obviating this rejection. Claim 35 has been amended to remove the term "Inbred" thus obviating this rejection.

Claim 48 stands rejected for the recitation "growing said progeny soybean seed of step (a)". The examiner states it is not clear if the recitation is referring to step (a) of claim 48 or parent claim 46. The Examiner also states that it is not clear if the reference of steps (a) and (b) in step (c) of claim 48 refers to those steps of claim 48 or 46. Applicant respectfully traverses. It is common claim construction that the alphabetically designated steps in claim 48 would refer to those steps recited in claim 48. Applicant submits that this is not indefinite.

REJECTIONS UNDER 35 U.S.C. § 112, FIRST PARAGRAPH

The Examiner rejects claims 5, 6, 10, 21-23, 27, 28, 32, 40, 44, 45 and 49 under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey that the inventor had possession of the invention. The Examiner indicates that the claim of any tissue culture of cells, any soybean plant from breeding, or any plant derived therefrom with two traits which all originating from soybean plant 93B87 is not described in the specification all the characteristics of the progeny are nowhere disclosed. Applicant respectfully traverses. There is great detail in the specification as to culture techniques and breeding techniques and how one applies these techniques to soybean plant 93B87 to generate the derived plants or tissue cultures of the invention. Claims 23 and 45 even claim that the plant must possess at least two of several enumerated traits that must be from plant 93B87. Each cell culture, or plant that is created using applicants unique and novel material will possess the unique germplasm that forms the invention. Applicant has described plants of the invention as well as making a deposit of the same. It is submitted that this in combination with the detailed information about breeding satisfies the requirements of Section 112.

The Examiner rejects claims 1-49 under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Examiner points out that the seed is essential to the claimed invention and Applicant must deposit seeds for 93B87 at the ATCC.

With regard to the deposit of inbred line 93B87, Applicant wishes to note that:

- (a) during the pendency of this application access to the invention will be afforded to the Commissioner upon request;
- (b) all restrictions upon availability to the public will be irrevocably removed upon granting of the patent;
- (c) the deposit will be maintained in a public depository for a period of thirty years, or five years after the last request for the enforceable life of the patent, whichever is longer;
- (d) a test of viability of the biological material at the time of deposit will be conducted (see 37 C.F.R. § 1.807); and
- (e) the deposit will be replaced if it should ever become inviable.

Applicant wishes to state that the actual ATCC deposit will be delayed until the receipt of notice of otherwise allowable subject matter. Once such notice is received, an ATCC deposit will be made, and the claims will be amended to recite the ATCC deposit number. In addition, Applicant submits that at least 2,500 seeds of 93B87 will be deposited with the ATCC on or before the date of payment of the issue fee. In view of this assurance, the rejection under 35 U.S.C. § 112, first paragraph should be removed (MPEP 2411.02). Such action is respectfully requested.

REJECTIONS UNDER 35 U.S.C. §§ 102 and 103

The Examiner rejects claims 1-49 under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103 (a) as obvious over Steiger (U.S. Patent No. 6,153,816).

Applicant respectfully traverses this rejection. Once again the applicant would like to point out that the inventions 93B87 and 93B35 are not the same inventions. Nor are their differences "minor morphological variations". Applicant submits that the claimed plant cannot be rendered obvious or lacking novelty as it possesses a unique combination of traits which confers a unique combination of genetics.

The inventions 93B87 and 93B35 differ for various traits that are not minor. Nor are they expected to occur in different progeny of the same cultivar, as evidenced earlier. These varieties differ for many important traits.

The Examiner also states that amending claims to include ATCC accession number will overcome the rejection for claims 1-9, 11-20, 24-26, 28-31, 33-39, 41-43 and 46-48. The Applicant would like to stress that at the time of the notice of allowable claims such ATCC number will be entered.

The Examiner goes on to state that "even with the inclusion of ATCC number, the plants of claims 10, 21-23, 27, 32, 40, 44, 45, and 49 are still taught by Steiger; as inbred line 93B35 has at least two characteristics of 93B87 listed in those claims. The process of making the claimed plants does not distinguish the plants themselves from those taught by the reference. Thus, the claimed invention was clearly *prima facie* obvious as a whole to one of ordinary skill in the art, if not anticipated by Steiger."

The Applicant respectfully disagrees with the Examiner. Applicant submits that though 93B35 and 93B87 exhibit some similar traits, what is being claimed is not the trait but the unique combination of alleles contained in 93B87. It is this unique

combination of genetics and traits in 93B87 that will give rise to the claimed plants resulting from breeding with this material.

As discussed above, 93B87 is clearly differentiated from 93B35. Further, plants derived from 93B87 are also clearly differentiated. It must be recognized that the 93B87-derived plants are themselves unusual and a nonobvious result of a combination of previously unknown and nonobvious genetics. In addition to the phenotypic traits described herein, each 93B87-derived plant has an additional benefit unique to each specific cross using 93B87 as one of its ancestors. Thus, they deserve to be considered new and nonobvious compositions in their own right as products of crossing when 93B87 is used as a starting material.

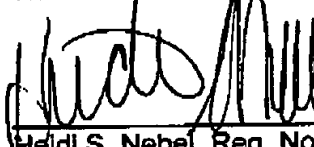
In light of the above, Applicant respectfully requests the Examiner reconsider and withdraw the rejection to claims 1-49 under 35 U.S.C. §§ 102(e) and 103(a).

CONCLUSION

Attached hereto is a marked-up version of the changes made to the specification and claims by current amendment. The attached page is captioned **"VERSION WITH MARKINGS TO SHOW CHANGES MADE"**.

Applicant submits that in light of the foregoing amendments and remarks, that claims 1-49, as amended, are in condition for allowance. Reconsideration and early notice of allowability is respectfully requested. If it is felt that it would aid in prosecution, the Examiner is invited to contact the undersigned at the number indicated to discuss any outstanding issues.

Respectfully submitted,
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Application No. 09/747,592

**AMENDMENT — VERSION WITH MARKINGS
TO SHOW CHANGES MADE**

In the claims

Claims 9, 13, 14, 18, 20, 31, 35, 36, 39, and 43, have been amended as follows:

9. The [soybean breeding program] method of claim 8 wherein said plant breeding techniques are selected from the group consisting of: recurrent selection, mass selection, bulk selection, backcrossing, pedigree breeding, restriction fragment length polymorphism enhanced selection, genetic marker enhanced selection, and transformation.
13. The method of claim 11 for producing a first generation hybrid soybean seed wherein [the inbred soybean plant of claim 2] a soybean plant produced by growing the seed of soybean variety 93B87 is the female parent.
14. The method of claim 11 for producing a first generation hybrid soybean seed wherein [the inbred soybean plant of claim 2] a soybean plant produced by growing the seed of soybean variety 93B87 is the male parent.
18. An F₁ hybrid soybean [seed] plant, or parts thereof, grown from the seed of claim 17.
20. The [soybean breeding program] method of claim 19 wherein plant breeding techniques are selected from the group consisting of: recurrent selection, mass selection, bulk selection, backcrossing, pedigree breeding, restriction fragment length polymorphism enhanced selection, genetic marker enhanced selection, and transformation.
31. The [soybean breeding program] method of claim 30 wherein plant breeding techniques are selected from the group consisting of: recurrent selection, mass selection, bulk selection, backcrossing, pedigree breeding, restriction fragment length polymorphism enhanced selection, genetic marker enhanced selection, and transformation.
35. The method of claim 31 for producing a first generation hybrid soybean seed wherein [the inbred soybean plant of claim 24] a soybean plant having all the morphological and physiological characteristics of soybean plant 93B87 is the female parent.
36. The method of claim 33 for producing a first generation hybrid soybean seed wherein [the inbred soybean plant of claim 24] a soybean plant having all the

morphological and physiological characteristics of soybean plant 93B87 is: the male parent.

39. The [soybean breeding program] method of claim 38 wherein plant breeding techniques are selected from the group consisting of: recurrent selection, mass selection, bulk selection, backcrossing, pedigree breeding, restriction fragment length polymorphism enhanced selection, genetic marker enhanced selection, and transformation.
43. An F₁ hybrid soybean [seed] plant, or parts thereof, grown from the seed of claim 42.